



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/030,242

10/22/2001

Nicolaas Van Der Blom

NVB1-BQ16

8832

7590

02/27/2004

Harnes, Dickey & Pierce, P.L.C.  
Attn: John Castellano, Esq.  
11730 Plaza America Drive  
Suite 600  
Reston, VA 20190

EXAMINER

LOPEZ, FRANK D

ART UNIT

PAPER NUMBER

3745

DATE MAILED: 02/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/030,242

Applicant(s)

VAN DER BLOM, NICOLAAS

Examiner

F. Daniel Lopez

Art Unit

3745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) 5-24 and 28-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 40-54 is/are rejected.
- 7) ☒ Claim(s) 25-27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152).
- 6) ☐ Other: .

***Election/Restrictions***

Claims 5-24 and 28-39 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 5. Applicant indicated that "claims 1-19, 25-28, 31-32, 33-39 and 40-54" should be examined. Applicant and examiner agreed that claims 1-4 and 40-54 were generic. The examiner understands that claims 25-27 are specific to the elected species (species II). But the examiner disagrees with the applicant about claims 5-19, 28, and 31-39, for the following reasons. Claim 5 is not specific to species II, since it claims "support members being rotatable between 10 degrees and 40 degrees relative to the longitudinal axis of the chamber", but the support members of species II rotate about the longitudinal axis, and so is always at an angle of 90 degrees. Claim 9 is not specific to species II, since it claims "an elastically deformable container" whereas the seal of species II is solid (i.e. no container). Claim 33 is not specific to species II, since it claims "the chamber comprising an elastically deformable inner wall", whereas species II has a solid inner wall. Claims 6-8; 10-19, 28, 31 and 32; 34-39 are not specific to species II, since they depend from claims 5, 9 and 33, respectively.

***Claim Rejections - 35 USC § 112***

Claims 2 and are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 2 line 2 "the concave portion" is confusing, since it appears to be referring to "recessed portion" of claim 1 line 22.

In claim 3 line 2 "the cylindrical portion" has no antecedent basis.

In claim 43 line 3 and claim 48 line 3 "means for engaging the piston", claim 48 line 4-5 "means for introducing fluid into the chamber...", claims 47 and 51 line 2 "means for biasing the piston" and claim 53 line 3-4 "means for combusting..." are means plus function limitations, which invokes the 112, 6<sup>th</sup> paragraph. As such, the specification must specifically define what elements are included in the means.

In claim 49 line 1-2 "fluid entrance connected to the chamber and comprising a valve means" appears to be part of the "means for introducing fluid into the chamber" of claim 48 line 4-5, and should be so indicated.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 53 is rejected under 35 U.S.C. 101 because the disclosed invention is inoperative and therefore lacks utility. Claim 53 claims a combustible fluid introduced into the chamber and means for combusting the combustible fluid, which indicates that the piston is heated by the combusted fluid; but there is no indication that the sealing portion of the piston (i.e. the elastomeric member 25) can withstand the temperature of a combusted fluid.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 40-42 and 43-45 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by either British 2,023,715 or British 2,070,731. The limitation "A shock absorber" of claims 43-45 is considered intended use, since there is no limitation limiting the claimed invention to a shock absorber.

Claims 1-3 and 43-47 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Schmidt et al.

Claims 1-4 and 43-47 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Fabel et al.

Claims 1-3 and 48-52 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Langas.

Claims 1-4, 48 and 52 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Stubin.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 53 and 54 are rejected under 35 U.S.C. § 103 as being unpatentable over Stubin. Stubin discloses an actuator comprising chamber (2) having different cross sectional areas at first and second longitudinal positions, with substantially continuously different cross sectional areas between the first and second positions; a piston including sealing means (10) supported by a piston body (6), with the piston body designed to adapt itself to the different cross sectional areas during longitudinal movement; a piston rod (1a) engaging the piston from outside the chamber and means for introducing fluid, resulting from combustion of a combustible fluid, into the chamber to displace the piston between the first and second positions; but does not disclose that the combustible fluid is introduced into the chamber, with means for combusting the fluid; or that the movement of the piston rotates a crank.

Official notice is taken that it is well known to use a combustion type piston cylinder to rotate a crank. It would have been obvious at the time the invention was made to one having ordinary skill in the art to use the combustion type piston cylinder of Stubin to rotate a crank, as a matter of engineering expediency.

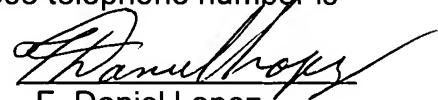
Official notice is taken that it is well known to introduce a combustible fluid into a chamber, with means for combusting the fluid, as an alternative to introducing fluid, resulting from combustion of a combustible fluid, into the chamber. It would have been obvious at the time the invention was made to one having ordinary skill in the art to introduce the combustible fluid into the chamber of Stubin, with means for combusting the fluid in the chamber, as a matter of engineering expediency.

### ***Conclusion***

Claims 25-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Lopez whose telephone number is (703) 308-0008. The examiner can normally be reached on Monday-Thursday from 6:30 AM -4:00 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Look, can be reached on (703) 308-1044. The fax number for this group is (703) 872-9302. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0861.

  
F. Daniel Lopez  
Primary Examiner  
Art Unit 3745  
February 20, 2004